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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,267	03/31/2004	Jos Bastiaens	08CN8851-6	7478
23413	7590	05/12/2005	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			ZEMEL, IRINA SOPJIA	
			ART UNIT	PAPER NUMBER
			1711	
DATE MAILED: 05/12/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/815,267

Applicant(s)

BASTIAENS ET AL.

Examiner

Irina S. Zemel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 4, 7-10, 12, 15-17, 19-, 21-23, 25, 27-30, 32, 34-35, 37-, 39, 42-44, 52, and 53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 6,593,205.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the referenced patent claims an expandable compositions while the instant claims claim expanded composition. Expanding expandable composition claimed in claims 1-27 of the '205 patent would have been clearly obvious because the intended use of the composition, claimed as "expandable" in '205 patent is clearly to expand the compositions. Furthermore, the preamble limitation of claim in the '205 patent "expandable" requires the compositions to be capable of being expanded, further rendering obvious expanded compositions obtained from the claimed expanded compositions. Furthermore, starting from claim 17 and up to claim 44, and 52-53 the claimed compositions is "expandable", not expanded, i.e., the same as claimed in the

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'205 patent. Using plasticizer free polystyrene as claimed in the instant invention would have been obvious from the polystyrene generically claimed in '205 patent, since majority of synthesized polystyrenes inherently does not contain plasticizer.

Claims 1, 4, 7-10, 12, 15-17, 19-, 21-23, 25, 27-30, 32, 34-35, 37, 39, 42-44, 52, 53 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1-15 of copending Application No. 10/427,278. Although the conflicting claims are not identical, they are not patentably distinct from each other because the referenced patent claims an expandable compositions while the instant claims claim expanded composition. Expanding expandable composition claimed in claims 1-15 of the '278 application would have been clearly obvious because the intended use of the composition, claimed as "expandable" is clearly, to expand the compositions. Furthermore, the preamble limitation of claim in the '278 application "expandable" requires the compositions to be capable of being expanded, further rendering obvious expanded compositions obtained from the claimed expanded compositions. Furthermore, starting from claim 17 and up to claim 44, 52 and 53 the claimed compositions is "expandable", not expanded, i.e., the same as claimed in the referenced co-pending application. Using plasticizer free polystyrene as claimed in the instant invention would have been obvious from the polystyrene generically claimed in '278 application, since majority of synthesized polystyrenes inherently does not contain plasticizer.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4, 6, 8-10, 12, 14, 16-17, 19, 22, 23, 25, 28, -30, 32, , 35-37, 39, 41, 43-45, 47, 50-53 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Allen.

The rejection of all pending claims over Allen stands as per reasons set forth in the previous office action. The reference expressly addresses all of the limitations of claims listed above as discussed in the previous office action. For specific examples of blowing agents, nucleating agents, flame retardant agents, precursor compositions, etc., see column 5, lines 7-65, and all illustrative examples.

The reference does not specifically addresses sound level properties of the disclosed expanded compositions (as claimed in claim 2), however, since the

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compositions disclosed in the reference and the claimed compositions are substantially identical and produced by substantially identical methods, it is reasonable believed that the claimed property limitation is inherently met by the compositions disclosed by Allen. The burden is shifted to the applicants to provide factual evidence to the contrary.

While the reference does not expressly address whether the polystyrene used in the expanded blends is essentially free of plasticizer or nucleating agents, the polystyrenes disclosed in the reference and described as homo or copolymers of various vinyl-aromatic compounds would normally refer to a polymer free of any additives. Plasticizer, or compound used to improve processing behavior or flexibility of a given polymeric compound, is not normally formed in situ during polystyrene polymerization, and, normally, is specifically added after polymer formation. This position is supported, for example, by disclosure of Allen in column 5, lines 7-17, stating that normal or conventional additives, including plasticizers, are normally added during the blending process.

In the alternative, even if the polyarylene polymers disclosed in the reference do contain plasticizer, elimination of a component and its function would have been considered obvious in the absence of unexpected results that can be attributed to the presence or absence of a plasticizer in the polyarylene polymer. So far, the record is devoid of any showing of such results.

Claims 3, 5, 11, 13, 18, 10, 24, 26, 31, 33, 38, 40, 46, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in combination with as applied to

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claims listed above above, and further in view of US Patent 4,350,793 to Schmidt et al., (hereinafter "Schmidt").

The disclosure of Allen is discussed above and in the previous office action. Allen does not expressly disclose intrinsic viscosity of suitable polyphenylene oxides (PPO) and molecular weights of suitable polystyrenes thus implying that PPO of any known and commonly available viscosities and polystyrene of any known and commercially available molecular weights are suitable for the invention absent showing of unexpected results that can be clearly attributed to the claimed viscosities and molecular weights. PPO with claimed viscosities and polystyrenes of claimed molecular weights are well known in the art as evidenced by, for example, Schmidt. (Columns 5 and 6). Thus use of claims PPO and polystyrenes such as those disclosed by Schmidt in compositions of Allen would have been obvious with reasonable expectation of adequate results.

Claims 7, 15, 21, 27, 34, 42, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in combination with Taubitz.

The disclosure of Allen is discussed above and in the previous office action. Allen does not expressly disclose addition of impact modifiers to the compositions disclosed in the reference. However, addition of impact modifiers to polymeric compositions based on PPO and/or polystyrene is notoriously well known in the art to improve impact resistance of the polymers, as supported, for examples, by Taubitz. Therefore, adding impact modifiers for their primary purpose of improving impact resistance of the PPO/polystyrene compositions disclosed by Allen would have been

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obvious with reasonable expectation of adequate results absent showing of unexpected results.

Response to Arguments

Applicant's arguments filed 2-1-2005 have been fully considered but they are not persuasive. The only argument presented by the applicants is that Allen does not use polystyrene essentially free of plasticizer. This argument is not persuasive, and does not appear to be factually supported. Nowhere in the reference Allen discloses polystyrene as containing plasticizer. As discussed above, polystyrene polymer after being polymerized does not inherently contain plasticizers, which have to be physically added to a polymer. Again, as discussed above, the reference expressly states that additives such as plasticizers can be added to the compositions upon blending components. It is not clear based on which facts applicants concluded that Allen does not disclose polystyrene essentially free of plasticizers. Simply because Allen does not expressly disclose a given property or characteristic of a component, does not mean that this characteristic is not inherently exhibited by this component. The disclosure of the reference clearly implies that the disclosed polystyrene is unmodified and has no additives, since additives are mixed in the blend at a later stage as per examples or disclosure in column 5. Also, as discussed above, even if, arguendo, polystyrenes disclosed by the reference do contain plasticizer (fact that is NOT supported by the reference). Elimination of a component and its function is long considered by the court

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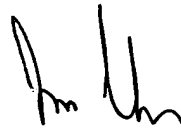
to have been obvious in the absence of unexpected results, which unexpected results are clearly lacking from the record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ISZ



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